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GOALS & GUIDELINES

GEOLOGICAL

The first impression that captures all who enter Red Rock Canyon State Park is one of impressive, colorful, and powerful majestic geology. The maintenance or preservation of the geologic values inherent in the park is of primary importance to current and future park users. The Park's spectacular desert vistas and the imposing and resplendent majesty of the Park's powerful cliffs and canyon lands are a direct result of the local geologic and tectonic histories. Alternating and sometimes contrasting layers of colorful badlands and volcanism form the overarching backdrop of Red Rock Canyon State Park. Preservation of the fragile sedimentary cliffs, rock arches, and palisades is imperative to the perpetuation of park values, and as such, care must be taken to maintain geologic integrity.

Goal: Preserve and protect the unique scientific and scenic qualities of the geologic resources and features inherent within Red Rock Canyon State Park.

- **Guideline:** Support and foster efforts to geologically map the stratigraphy and lithologic formations and structural features found in the park.
- **Guideline:** Specifically map certain identifiable park features, such as rock arches, windows and palisades, which capture the human imagination, and monitor those processes or practices that might expedite unnecessary deterioration. Take protective actions when necessary.
- **Guideline:** Recognize and mitigate impacts to fragile, or otherwise special, geological features during the creation of management plans.
- **Guideline:** Preserve the integrity of fragile sedimentary badlands.

 Badlands are particularly vulnerable to a variety of destructive human activities that promote excessive erosion.
- Guideline: Identify the understudied elements of the geological resources inherent within Red Rock Canyon State Park and promote research as a means of determining resource significance, as well as the enhancing the development of interpretive themes. Targeted examples would be the presence of the potential Mesozoic/Cenozoic boundary within the Goler formation and the Pleistocene/Holocene evolution of the local landform.
- **Guideline:** Alter, curtail, or eliminate visitor activities that produce significant and/or recurrent impacts on the fragile geologic

resources and their inherent values preserved in Red Rock Canyon State Park.

Guideline: Professionally manage and curate all geological collections.

Goal: Promote a better understanding and a greater appreciation for the geological resources of Red Rock Canyon State Park.

Guideline: Review the park's inherent geologic resources, including specialized data, to determine the best means of interpreting the geologic history of the park. Develop interpretive themes to enhance public enjoyment and appreciation.

Guideline: Work with the 90 educational institutions of higher learning documented as using Red Rock Canyon State Park to assist and enhance educational opportunities while maintaining a non-destructive, non-impactive learning environment that sustains multi-generational opportunity.

Guideline: Encourage or perform relevant scholarly publication of geologic research.

HISTORIC RESOURCES

(Buildings, Structures, Objects, Sites, Districts, and Landscapes)

Over the years, various historic events, trends, individuals, as well as groups of people have shaped and modified the land now contained within the Last Chance Addition to Red Rock State Park. The result is a large number of significant historic resources. These include roads, campsites, and the remains of buildings, structures, sites, features, and districts, as well as important motion picture filming locations. While the majority are scattered throughout the Addition, some are clustered together as part of cultural landscapes. The scope of these historic resources ranges from historic transportation corridors related to mineral exploration and extraction, to expanding scientific discovery and technology. Through the protection and interpretation of these historic resources, the stories of those that passed through, settled, exploited, recreated, or attempted to preserve the desert can be told to future generations of park visitors.

Goal: To ensure the highest level of appropriate measures to stabilize, preserve, protect, and interpret the Addition's historic resources, focusing on areas of exceptional historical significance.

Guideline: Develop an inventory, mapping, and informational database for those historic resources within the Addition that may be eligible for inclusion in the California Register of Historic Resources and the National Register of Historic Places.

Guideline: To facilitate the management of this database, as well as the classification and interpretation of the Addition's historic resources, categorize and group them under one or more of the following historical themes that are representative of the Addition, as well as the original Red Rock Canyon State Park's historical development:

TRANSFORMING THE ENVIRONMENT

- Perhaps the most important theme in relation to the historic activities associated with the Red Rock/Last Chance Canyon Addition area, this theme examines the continuous interaction between people and the environment where they lived and worked.
 - Example: the remains of prospect pits, dugouts, shaft openings, tailing deposits, machine pads, roads, campsites, cabins and building foundations located along Last Chance Canyon. While they might lack individual distinction, collectively they convey a particular time and place showing the canyon's linear evolution as an important mining center for over a hundred years.

DEVELOPING THE AMERICAN ECONOMY

- This theme reflects the ways people have engaged in economic activities within the area.
 - Example: the cabins, structures, sites, and other physical remains of sites associated with both non-wage earning activities like prospecting, as well as paid laborers and craftsmen engaged in mineral mining and extraction, sheep and cattle herding, and film making.
 - A specific example would be the Cudahy Camp site in the middle of Last Chance Canyon. It is a historic archaeological site that can provide information about the lives, culture, and perhaps ethnicity of the workers who worked at the nearby Old Dutch Cleanser Mine between 1923 and 1947.

EXPANDING SCIENCE AND TECHNOLOGY

- The pursuit of scientific knowledge pertaining to the physical and social sciences.
 - Example: any surviving archaeological artifacts associated with the U. S. Army's ground observation/radar facility on Opal Peak would come under the category of experimentation and invention under this theme. The use of radar was in its infancy at the outbreak of World War II, and represents attempts by the U. S. Army to adapt the technology to military defense purposes

EXPRESSING CULTURAL VALUES

• People's expressions of their culture, whether about themselves or the world

they inhabit.

- Example: Geological formations used as backdrops in film and/or television production. Such locations can be evaluated and interpreted as historic cultural landscapes, which, intentionally or not, helped to promote America and the world's popular view of the American Southwest and the near mythic "Code of the West" morality. These mass media images are also associated with and help developed the "Western" personas of such noted Hollywood actors and directors as Gene Autrey, Leo Carrillo, Henry Hathaway, and Howard Hawks.
- Prepare a park-wide Cultural Resources Management Plan (CRMP) to establish an
 ongoing management process to locate, record and interpret the Addition and the
 original Red Rock Canyon State Park's historically significant resources. Develop a
 long-range management strategy that includes the stabilization, preservation,
 rehabilitation, restoration, or reconstruction of these resources.
- The CRMP should also identify and evaluate potential cultural landscapes within the Addition. These are geographical areas (including cultural and natural resources, and the wildlife or domestic animals within) associated with an historic event, activity, person, or groups, or exhibiting other cultural or aesthetic values. These include historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes. Examples are trails, roads, mines, and homestead/ranch sites, with their associative topography, natural resources, and man-made improvements.
- Establish a program to protect all historically significant resources within the Addition and the rest of the park from adverse effects resulting from facility development and improvement, resource management programs, visitor, and staff use, or natural processes.
 - Prior to any undertaking that would affect or alter a historic resource's historical significance or integrity, such as the preservation, rehabilitation, alteration, or addition to an identified historical resource, consider whether the project benefits or is detrimental to the historic resource.
 - A qualified historian shall evaluate the proposed project. Such an evaluation
 would include, but not be limited to additional studies, such as archival research,
 interviews, detailed site/structure recordation and mapping, and perhaps
 subsurface testing with the assistance of a qualified archaeologist. If it is
 determined that the project poses a threat to the resource, an attempt should be
 made to modify the project to a level of no or minimal impact to the historic
 resource.
 - If a finding of significance for a historical resource has not been made prior to the proposed project, park staff will consult with a qualified historian to determine its historical significance and integrity prior to any undertaking that has the

- potential to cause an adverse effect to the resource. Once identified and evaluated, the historic resource shall be included into the database and managed according to the CRMP.
- Any plan for the historic resource's preservation, rehabilitation, restoration, or reconstruction shall comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties, the California Department of Park, and Recreation's Resource Management Directives.
- Evaluate the need for/appropriateness of interpretational signage for specific historical resources.
- Consider the acquisition of additional land from willing sources that contain historic
 resources linked to those within the Addition and the rest of the park. Consider
 acquiring additional land that might act as a buffer for the protection of especially
 significant historic sites or landscape features within the Addition and the original
 Red Rock Canyon State Park.
- Work to celebrate and protect the Park's diverse cultural heritage through activities and programs that highlight cultural resources.

Goal: Identify, document, and evaluate historical resources within the Last Chance Canyon Addition of Red Rock Canyon State Park.

- **Guideline:** Develop a program for archaeological survey, site recordation and evaluation, GPS mapping, and preparation of records and reports for prehistoric archaeological sites and historic-period properties within the park. Prepare Archaeological Site Condition Assessment forms for historical resources to maintain a record of their condition.
- **Guideline:** Conduct oral history interviews with descendants of families who formerly lived in the park and/or who operated mines or other ventures within the park. This information can be used to supplement and improve historical information about the park.
- **Guideline:** Develop and maintain the archive of historical documents, journals, maps, books, oral history accounts, movies, and photographs pertinent to the park.
- **Guideline:** Improve and maintain the inventory of cultural resource records, site location data, survey coverage maps, GPS data, and other field data. This information should be available to cultural specialists throughout California State Parks and to qualified, professional researchers outside of DPR.

Guideline: Develop a working relationship with academic institutions and other governmental agencies to facilitate the exchange of scientific data and fieldwork opportunities within the park.

INTERPRETATION

California State Parks' primary opportunity for engaging the public in the benefits and value of preserving desert wilderness and related cultural resources lies within the Park's interpretive program offerings. Through an intensive interpretive program, Park resources can be better cared for — protecting the Park's integrity for many generations.

Interpretation is a communication process that forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource. Through interpretation, the Park provides experiences, information, direction, and stewardship opportunities for visitors.

Goal: Provide opportunities to increase visitors' knowledge and appreciation of the significant natural and cultural resources of the Park, expand their understanding of ecological relationships, and heighten their awareness and sensitivity to human impacts, without compromising the integrity of the Park's exceptional resources.

Guideline: Provide meaningful interpretive opportunities accessible to as many visitors as possible by offering a diverse selection of personal and non-personal services in a variety of locations, languages, and settings throughout the Park.

Guideline: California State Parks shall strive to create "world-class" facilities that support stewardship and study of the Park's "world-class" resources.

Goal: Include outreach efforts to develop partnerships with and support from the community for interpretive programming and environmental education. Current and potential partners include: local resorts; local Chambers of Commerce; local, regional, and non-profit organizations with similar or complimentary goals; colleges and universities; concessionaires; and government agencies.

Guideline: Develop outreach and partnerships with area schools, childcare, and youth groups. Create and present programs aligned with state educational standards featuring Red Rock Canyon SP's natural and cultural resources, as well as the scientific processes associated with recording and understanding them.

Guideline: Create unequalled youth and adult educational, research, and interpretive opportunities. Develop an ongoing relationship with local school districts. Create a program track that builds upon students' understanding and appreciation of park resources from

year to year. This includes, but is not limited to: in-school programs, park programs, ranger ride-alongs, student internships, professional mentoring, and student service projects.

Goal: Strive to achieve Park management goals through interpretation whenever possible, including safety, land-use, critical resources, human impacts, and other issues.

- **Guideline:** Support staff and volunteers through training (both in content and method), materials, facilities, and evaluation to promote high quality interpretive services.
- **Guideline:** Employ sufficient staff to meet visitor and management demand for interpretive programming.
- **Guideline:** Use signs and other media to protect resources from damage due to visitor use.

INFRASTRUCTURE AND OPERATIONS

The infrastructure is the underlying "foundation" (including basic installations and facilities), on which the health, safety, and comfort of park visitors depend. This infrastructure can enhance the visitor's enjoyment of the Park by providing a basic level of information, service, and/or comfort.

Goal: Strive toward excellent facilities that represent the integrity of RRCSP. Design and maintenance of park facilities should embody the California State Parks Mission while producing meaningful places and spaces worthy of preservation by future generations.

- **Guideline:** Provide facilities that are clean and in good repair.
- **Guideline:** Maintain facilities in a manner that minimizes impacts on park resources while sustaining the quality of the facilities.
- **Guideline:** Provide visitor-use facilities (campgrounds, etc.) that offer the opportunity for diverse visitor experiences. Facilities will be geographically placed to maximize visitor and staff use while minimizing negative effects on viewshed, night skies, opportunities for solitude, or natural and cultural resources.
- **Guideline:** Design should evolve from a collaborative and visual process that is led by a design professional, and involves the users, the District staff, resource professionals, and other stakeholders.
- **Guideline:** Design decisions should be sensitive to the contextual nature of the site, including the region's cultural and natural environment.
- **Guideline:** Promote and incorporate the use of sustainable, "green" design for facilities.

Goal: Develop facilities and programs that improve visitor experience and resource integrity.

- **Guideline:** Maintain natural resource values through implementing aggressive natural resource maintenance, and restoring natural resource values through comprehensive project-based stewardship efforts.
- **Guideline:** Develop new visitor facilities to accommodate changing visitor uses, population demographics, and increases in visitation
- **Guideline:** Work to improve modes of communication for ranger staff. Seek equipment and methods that aid staff emergency-response abilities within the Park.
- **Guideline:** Develop additional staff housing and other operational support facilities that aid in staff efficiency and effectiveness within the Park setting as needed.
- **Guideline:** Develop innovative strategies to deal with the facility needs for extreme seasonal fluxes in visitation.

Goal: Provide trails and roads that offer the opportunity for diverse visitor experiences while not compromising the integrity of park resources.

- **Guideline:** Develop a comprehensive Roads and Trails Management Plan (to include issues such as maintenance, volunteer efforts, resource impacts, clearly defined regulations, etc.) The following criteria will be evaluated and addressed within these plans:
 - Maintain roads and trails to the degree appropriate for the intended use, and in such a manner that they are clearly delineated to the user while not detracting from the visual aesthetics of the area in which they are located
 - Roads and trails or portions of may be closed to some or all types of traffic, or rerouted (based on findings from the Roads and Trails Management Plan), when resources are being damaged, compromised, or when public safety is in jeopardy.
 - □ Extend limited green sticker vehicle access across the new lands. The intent of green sticker vehicle access is to facilitate use that is compatible with the park's resources and designation. Per the existing General Plan page 28, "Access can be rerouted or halted if necessary, to protect the park's resources."
 - □ Survey trail designation and visitor experience to ensure that conflicts between user groups are kept to a minimum.

Guideline: Roads and trails will exist in such a way that they enable the visitors to experience the diversity of the Park, while minimizing negative effects on the resources.

HAZARDS

The majority of the soils are highly erosive, especially when located within a major watercourse or subject to flash flooding. Management plans and decisions with respect to facilities placement and visitor access must recognize and avoid or mitigate these potential hazards.

Old mines, including underground tunnels and mining implements are a part of the area's existing conditions.

Goal: Ensure that all facilities and structures provide a safe environment for visitors.

Guideline: Recognize the potential for major flash flood events and ensure that park facilities are sited to avoid flash flood damage.

Guideline: Survey land acquisitions for mining hazards. Complete the actions necessary to ensure the safety of park visitors from such hazards.

Guideline: Complete a site-specific geological investigation for major facility developments. Include an evaluation of the soil properties to verify that the site is appropriate for development. Some of the concerns associated with soils and development include bearing capacity, potential for erosion, and corrosive properties.

STAFFING

RRCSP is one of the largest state parks in the State Park System. It also contains some significant resource values and provides some outstanding natural, cultural, and wilderness experiences within the Mojave Desert.

The area patrols are limited. Roads maintenance is at a critically minimal level. As a result, visitors rarely have contact with rangers and resource problems can go undetected for some time. Furthermore, the seasonal component of visitation to RRCSP creates a strain on staff and duty requirements.

Increases in staff should be sought. The resulting increase in visitor interaction will help visitors enjoy their park experience more, enhance educational efforts, address safety concerns, help to keep roads and trails open, and improve the integrity of the Park's natural and cultural resources.

Goal: Increase field staff and equipment.

- **Guideline:** Strive to acquire increased staffing to more effectively operate the Park. Consider options that involve park volunteer organizations.
- **Guideline:** Provide for a sufficient and proper staffing balance as well as the requisite equipment for the Park's land management, infrastructure maintenance, resource preservation and visitor services staff.
- **Guideline:** Provide a dorm for seasonal and/or intermittent staffing at Ricardo Campground complex.
- **Guideline:** Develop innovative strategies to deal with staffing needs associated with the seasonal flux in visitation.

CULTURAL RESOURCES

The Last Chance Canyon Addition contains 82 recorded archaeological sites and several other known, but unrecorded, archaeological sites. Approximately 1,555 acres in the northeastern corner of the Addition lies within the Last Chance Canyon Archaeological District, a National Register of Historic Places property. This District was created in 1972 to recognize the extraordinary historical significance (and the density) of the archaeological sites present here. Many other archaeological sites within the Last Chance Canyon Addition represent highly significant cultural properties, with local, regional, national, and, even, international significance. Areas of the Last Chance Canyon Addition have not yet been systematically surveyed for historical resources, so the potential discovery of new archaeological sites remains great. Red Rock Canyon SP lies within the traditional territory of the Kawaiisu, though, other Native American groups may have also used the area in prehistory. Native Americans or other descendent groups may consider areas of the park culturally significant.

Goal: Identify, document, and evaluate historical resources within Red Rock Canyon State Park.

Guideline: Develop a program for archaeological survey, site recordation and evaluation, GPS mapping, and preparation of records and reports for historical resources within the park. Prepare site records updates for previously recorded archaeological sites, in particular, those records that do not meet current professional standards. Nominate those historical resources that may be eligible for inclusion in the National Register of Historic Places and the California Register of Historic Places.

Guideline: Prepare State Park Archaeological Site Condition Assessment Records for historical resources within Red Rock Canyon State Park, as needed.

- **Guideline:** Facilitate classification, eligibility determination, and interpretation of historic-period properties in the park by categorizing them under one or more of the historical themes outlined in the General Plan Amendment.
- **Guideline:** Conduct research on known roads, trails, natural corridors, and segments of historic routes of travel to identify their periods of use and historical significance.
- Guideline: Conduct oral history interviews with descendants of individuals or families who mined within Red Rock Canyon State Park and who may have resided in one of the work camps (e.g., Cudahy Camp, Holly Camp, and others). The information gained from the interviews will complement and expand upon historical data for the mines and work camp sites. The interviews can help highlight their roles in local history, and assist in the interpretation of these locations.
- **Guideline:** Facilitate paleo-environmental research, e.g., packrat midden studies, pollen cores at springs, analyses of plant macrofossils from archaeological deposits, analyses of fossil animal remains, and others, to assist in the interpretation of prehistoric archaeological sites and to better understand plant succession and other ecological issues within Red Rock Canyon State Park.
- **Guideline:** Aboriginal rock art represents a unique, culturally significant, and highly sensitive (in particular, easy to damage) historical resource type. Rock art recordation efforts should employ innovative techniques, e.g., enhancement of photographs using computer programs and others, to increase efficiency.
- **Guideline:** Identify film production locations within Red Rock Canyon State Park.
- Guideline: Solicit departmental resource management funds, outside grants, or other funding to assist with creating research and site-evaluation opportunities. Encourage outside researchers to obtain research grants for studies within Red Rock Canyon State Park that complement departmental resource management and interpretation goals. State Parks cultural specialists should provide oversight for such studies.
- **Guideline:** Encourage archaeological fieldwork within Red Rock Canyon State Park by university field study classes and graduate students, with proper oversight by State Parks Cultural Specialists.
- **Guideline:** Improve and maintain the inventory of historical resources records, site location maps, archaeological survey coverage maps,

- and GPS/GIS database for archaeological sites within the park. These data should be available to Department cultural specialists and park patrol rangers.
- **Guideline:** Develop and maintain an archive of historic documents, journals, books, maps, and photographs pertinent to the history and archaeology of Red Rock Canyon State Park, as well as, the history of research within the park.
- **Guideline:** Prepare brief information on archaeological sites within Red Rock Canyon State Park for inclusion on the Archaeology and History section of the Department website.

Goal: Inventory, analyze, and provide reports for existing archaeological collections from within Red Rock Canyon State Park. These inventories can assist park staff in evaluating the significance of various archaeological sites more completely.

- **Guideline:** Identify the location and inventory the status of collections from archaeological sites within Red Rock Canyon State Park.
- **Guideline:** Facilitate the completion of reports on the existing collections, using State Park staff or outside researchers, e.g., archaeologists from a local university. These reports should include the results of specialized analyses on specific artifact assemblages.
- **Guideline:** Evaluate the curation needs of the existing archaeological collections and implement them. State Parks archaeological collections should be cataloged with a Department accession number and stored under current professional standards.

Goal: Document, evaluate, interpret, and protect the numerous aboriginal chert and chalcedony quarry sites, flaked-stone prospect sites, flaked-stone workshop sites, and lithic scatters located within Red Rock Canyon State Park.

- **Guideline:** Apply specialized analytic techniques that are applicable to flaked-stone artifact assemblages, e.g., replication systems analysis, source determination analyses, identification of heat treatment, and others, to archaeological sites within the park and to existing archaeological collections.
- **Guideline:** Identify sources of degradation, erosion, and other forms of damage to these special archaeological sites and recommend management actions to protect them.
- **Guideline:** Investigate the role of stone artifacts from Red Rock Canyon State Park archaeological sites in prehistoric regional exchange networks.

Goal: Identify, protect, and interpret places within Red Rock Canyon State Park holding special cultural significance to Native Americans and other ethnic communities.

- **Guideline:** Consult with local Native American individuals, historical accounts, and ethnographic records to identify potential traditional cultural places and other special areas known by direct historical memory.
- **Guideline:** Identify areas of the park with potential significance to other ethnic communities through use of historical accounts, oral history interviews, and other means. Document and record these areas.

Goal: Protect, stabilize, and preserve historical resources within Red Rock Canyon State Park.

- **Guideline:** Develop resource management policies using up-to-date, high quality data.
- **Guideline:** Ensure that periodic examinations and assessments of known archaeological sites, historic buildings, and historical structures are conducted.
- Guideline: Assess the effects of visitor use (camping, hiking, vehicles, horses, and other active recreation) and natural erosion on archaeological sites. The condition of sites located within areas of the park receiving regular visitation (e.g., Hagen Canyon, Iron Canyon, Scenic Canyon, Nightmare Gulch, Last Chance Canyon, and others) should be regularly evaluated. Mitigative measures should be implemented where appreciable damage to archaeological sites is identified. Such measures can include, site-specific closures, realignment of roads and trails, moving camp sites, revegetation, placement of signs, site burial, initiation of a site stewardship monitoring program, and other measures.
- **Guideline:** Devise measures to protect historical resources during flood events, earthquakes, or other natural disasters and procedures for assessing damages after a natural disaster event. Archaeological sites most vulnerable to such damage can include those located along major stream courses and washes, those located upon alluvial fans, unsupported mining features, and others.
- **Guideline:** Evaluate and monitor the potential effects of work performed by outside agencies within or next to the park. Agencies that might operate within or next to the park include, Caltrans, Bureau of Land Management, California Fish and Game, Kern County road

crews, utility companies, mining operations, and the United States military.

Guideline: Formulate procedures for evaluating the potential effects of film production activities on historical resources.

Guideline: Provide the locations of archaeological sites, historical landmarks, and areas with high potential to yield evidence of archaeological remains to the State Park patrol rangers. Cultural resource training by departmental cultural specialists could be employed to augment this information. This information can assist park rangers in monitoring the conditions of historical resources throughout the park.

Guideline: Investigate the potential to establish an archaeological site stewardship program within Red Rock Canyon State Park, using the model established by the California Archaeological Site Stewardship Program or other successful programs.

Guideline: Establish standards for the treatment of fragile historical resources, such as, aboriginal rock art.

Guideline: Current archaeological site information and future studies and management plans will identify areas of Red Rock Canyon State Park with highly significant cultural remains that warrant higher levels of protection. Recommended protective actions may include Superintendent-ordered closures and designation of additional areas as Cultural Preserves.

VISITOR-USE AND OPPORTUNITIES (RECREATION)

The public enjoys many different forms of recreational activities at RRCSP. These activities provide renewal, pleasure, relaxation, and adventure. For some it means exposure to the challenges of a rugged wilderness environment, for others it is simply the passive enjoyment of natural scenery or contact with nature. People use recreational opportunities to gather socially, and for others, to seek solitude. RRCSP fulfills the public need for a place to recreate in all of these many ways.

However, recreational activities may have potentially negative effects on sensitive desert resources. Potential future increases in park visitors could multiply these negative effects. In addition, some recreational activities may interfere with each other and this interference may diminish the quality of the visitor's experience.

CARRYING CAPACITY

Park agencies, such as the U.S. Forest Service and the National Park Service, have long recognized that the management of visitor use requires data-based processes that respond to changing conditions. Carrying capacity is a dynamic process that adjusts

and readjusts to changing conditions. Properly done, carrying capacity is not a static culmination of a focused, one-time, scientific research. The proper management of public use for the sake of resource protection and quality visitor experience must be dynamic, responding to changes in resource conditions and visitor demands for recreational opportunities. This process is accomplished through all of the following planning steps:

New Acquisition Purpose: The intent of the Desert Protection Act for the transfer of this land from the BLM to California State Parks was to provide maximum protection for the area's scenic and scientific values.

Desired Future Conditions: Through the Goals and Guidelines of this section, this General Plan Amendment identifies the desired future conditions of the Park's natural and cultural resources and the visitors' experience. These conditions set a "target" for evaluating future decisions.

Project Implementation: As visitor-use projects are conceived, a multi-disciplinary team of cultural, natural, recreation and park planning specialists will prepare management plans that evaluate the desired future conditions set forth in this General Plan Amendment and will establish the appropriate facility design and/or size, seasonal openings/closings, or other operational management tools.

Monitoring the Conditions: The condition of both natural and cultural resources as well as visitor experience will be monitored. Should the desired future conditions be compromised, existing improvements (and management plans) will be revised accordingly.

Goal: Invest the staff time and utilize partnerships and volunteers to ensure full implementation of California State Parks' Inventory, Monitoring, and Assessment Program (IMAP). This program accomplishes both the data collection and monitoring components, which are the foundations of establishing the optimal carrying capacities of the Park. For RRCSP, the IMAP will also include a periodic reassessment of visitor experience using the "ABDSP Visitor Survey" (Appendix 5.4) as a template.

RECREATION

At the General Plan Amendment meetings, participants demonstrated a sharp contrast in the way they used the Park. Some of the audience was comprised of passionate four-wheel drive enthusiasts, while others were deeply concerned about the use, and impacts, of four-wheel-drive vehicles in the Park. Generally, all groups are drawn to the park for similar reasons: the wildness of the desert, the solitude, panoramas, discovery, and the night-sky.

Goal: Maintain the Park's qualities of solitude and wildness. Management decisions will favor the desert environment, promote the health and well being of desert ecosystems, and promote those activities that are sustainable over time in providing for the health, inspiration, and education of Californians.

Guideline: Protect the desert experience for generations to come.

Guideline: Preserve night sky viewing.

Guideline: Recognize that the aesthetic improvements that come with all natural resource restoration efforts, contribute to a higher quality experience for all visitors.

Guideline: Continue to work with appropriate agencies to minimize the negative effects of aerial fly-overs, traffic noise, and other impediments to visitor solitude.

Goal: Provide for a wide variety of high quality recreational experiences while ensuring the protection of park resources.

- **Guideline:** Work closely with recreational groups to ensure that their specific needs are addressed and incorporated into management decisions, where feasible and appropriate.
- **Guideline:** Ensure that appropriate recreational opportunities are available for people of all abilities, including seniors, children, and people with disabilities.
- **Guideline:** Develop opportunities for primitive camping in appropriate areas, including individual, group and equestrians camps.
- **Guideline:** Minimize user conflicts. Facilitate discussions among competing user groups. As appropriate, consider management measures including, but not limited to special designations of routes or areas for specific user groups.
- **Guideline:** Assess current and potential recreational activities for compatibility with land designations.
- **Guideline:** Identify the level and type of staff and visitor interaction appropriate for enhancing the visitor experience.
- **Guideline:** Assess primitive camping locations. Evaluate the condition of the sites and make recommendations for their continuance. Measures can include the following:
 - moving the sites to a less sensitive area
 - restriction of vehicular use
 - closing areas to camping

□ re-vegetation of degraded areas

Goal: Recognize historic uses and cultural heritage by identifying appropriate recreational/celebratory activities.

Guideline: Incorporate a broad range of ethnic and cultural perspectives in the management of recreational opportunities in the Park. Focus on the major ethnic and cultural groups of California and especially those in close proximity to the Park.

Goal: California State Parks shall recognize that many recreational activities associated with nature provide values that are often intangible or hard to define. California State Parks will strive to incorporate these "deeper" values into its management decisions.

Guideline: Preserve the qualities and opportunities that make this place so important for maintaining and rejuvenating the human spirit.

SAFETY

RRCSP is located in an environment that is full of potential dangers to visitors. These potential hazards include heat, cold, flash floods, rocky cliffs, slot canyons, seismic activity, landslides, poisonous snakes, and cacti. These and other hazards are exacerbated by the reality that most of the Park is remote and isolated. The key element to promote visitor safety is the implementation of an effective education program (see Interpretation Goals and Guidelines)

Goal: Promote Visitor Safety, while recognizing that the desert's climate, geology, wildlife, and vegetation are inherently hazardous. Measures to promote visitor safety will be taken while considering the importance of maintaining the visitor's experiences of adventure, discovery, and wilderness.

Guideline: Continually evaluate, expand, and adapt the visitor safety program to increase safety throughout the Park.

Guideline: Do not promote unescorted visitation to old mining sites. Avoid advertising their location in park literature and discourage private publications from doing the same. General safety warnings should be provided regarding the inherent dangers of mines, without revealing their location.

Guideline: California State Parks will evaluate visitor and environmental hazards and, where appropriate, develop mitigation measures to ensure for public safety.

NATURAL RESOURCE MANAGEMENT

The following sections contain goals and guidelines for managing the significant natural resources of the Addition. A few sections have over-arching goals that apply to

several sub-sections, such as Vegetation management, which includes Native Plant Communities and Sensitive Plant Species. Each sub-section will have guidelines that relate to the over-arching goal and to that specific sub-section. These goals reflect the legislation, laws, and policies pertaining to Red Rock Canyon State Park and the Addition.

VEGETATION MANAGEMENT

The Last Chance Addition supports six vegetation types as described in *A Manual of California Vegetation* (Sawyer, Keeler-Wolf 1995) and two vegetation types that are site specific. Specific native vegetation management has not been an active issue in the Addition, however steps can and should be taken to ensure that the health and integrity of the existing communities is maintained and managed when necessary.

Human induced changes have altered the natural process in some ecosystems in the Addition, which in turn affects the wildlife usage of these habitats. Although most of the vegetation management concerns, goals, and guidelines are the same throughout the Addition, consideration must be made for those areas that are recognized and/or recorded as cultural landscapes. The vegetation management guidelines for native plant communities are discussed with this section to illustrate the differences in management and resource protection.

Goal: Promote and restore the sustainability of natural ecosystem processes by actively managing plant community health and development, while maintaining the protection of cultural landscapes and resources. Efforts also will address the conservation of sensitive and unique species and the control of exotic invasive species.

*Native Plant Communities--*Six vegetation communities, including Joshua tree woodland, riparian scrub and creosote scrub characterize the Addition. These vegetation communities are essential habitat for many plant and wildlife species.

Guideline: California State Parks will develop scientifically based vegetation management objectives for issues such as habitat restoration and enhancement. Furthermore, California State Parks will develop management plans that avoid or minimize human impacts to the native plant communities within the Addition.

Guideline: When appropriate, California State Parks will seek partnerships with neighboring landowners to implement a congruent plan for restoring and preserving desert plant community health.

*Sensitive Plant Species--*The Addition land is bordered by lands owned by the State Parks and BLM designated off-highway vehicle areas. Many plants that live in the

Addition are specifically adapted to the desert environment and the unique soils that are found in the Addition. Because of their limited distribution, environmental requirements and often because of human impacts, these species become rare, threatened, or endangered.

Guideline: California State Parks will protect sensitive plant species, including those that are legally listed under Federal and State laws as rare, threatened, or endangered, or that are species of concern. In addition, California State Parks will protect those species that meet the legal requirements for listing, but are not listed (*i.e.*, California Native Plant Society List 1B taxa and Federal Candidate for listing), and those considered locally sensitive or endemic to the area. Protection may include, but is not limited to, habitat preservation, seed banking, restoration/enhancement and visitor education.

Guideline: A scientifically sound protocol for sensitive plant surveys will be developed and implemented to find previously unknown sensitive plant populations with the Addition. In addition, sensitive plant surveys will be conducted as part of the environmental review process for future projects. Avoiding or minimizing cumulative negative effects on sensitive plant populations and their habitats will be a priority.

Guideline: Regular monitoring of known populations of sensitive species will be conducted to track population trends and health through time. Propagation and reintroduction programs may be considered with the consultation and assistance of research institutions and other government agencies. Projects may require the formation of inter-agency partnerships to plan and implement conservation actions.

Guideline: California State Parks will use scientific information to determine how sensitive species tolerate various disturbances and use this information to develop sensitive species management plans. Sensitive species, like Red Rock tarplant (*Dienandra* (*Hemizonia*) arida) that exhibit extreme rarity in the Park and region will be management priorities.

Guideline: California State Parks will avoid or minimize human activities that cause imbalances in the natural ecological system.

Alternatively, California State Parks will conduct management activities, such as habitat restoration, that foster ecological balance.

Exotic Plant Control--Generally, an invasive exotic plant is a species that is not known to have occurred previously in an area. Invasive exotics pose a threat to native species

and usually proliferate in the absence of natural ecological processes, often outcompeting native plants for valuable resources.

The Mojave Desert, including the Addition, is known to harbor exotic plant taxa and some have altered the ecological processes characteristic of the region. Approximately 27 species of exotic plants are reported at Red Rock Canyon State Park and within the Addition, which constitutes approximately 8.65% of the flora; many of these are associated with previous settlements, mining and off road vehicle activity. The most widespread of these are non-native annual grasses, mustards, and tamarisk trees. Salt cedar (*Tamarix ramosissima*) is spreading at the expense of native plant communities.

Non-native seed is spread via wind, when carried in animals fur, and when animals eliminate it after ingesting it in their food. Ample evidence exists that pack animal solid waste contributes to the introduction and spread of exotic plant species in addition to contributing to nuisance insect species along trails. Measures can be taken to help prevent this. Furthermore, removing as much as possible of the animals' solid waste along trails can significantly reduce the introduction and spread of exotic species.

Guideline: California State Parks will develop an exotic plant species management plan and will be vigilant about identifying, monitoring, and controlling exotic plant infestations that pose a threat to native habitat. Monitoring and control efforts may require cooperative work with neighboring landowners, including government agencies like the BLM.

Guideline: The management plan will address the ability of horses and other pack animals to carry and spread exotic plant seed throughout the Park. The Park, therefore, will adopt a policy congruent with Federal agencies like National Park Service, to evaluate regulations to reduce exotic introduction. Removal of solid waste should be part of the equestrian experience within the Park.

Guideline: California State Parks will develop interpretation for Park visitors covering how exotics like salt cedar have altered the Mojave Desert landscape and natural processes.

WILDLIFE

The dry and sometimes harsh desert environment that characterizes the Addition supports six natural wildlife habitat types and one exotic habitat type as defined by the California Wildlife Habitat Relationships System. These native habitats support a wide diversity of wildlife species including mammals, reptiles, birds, and invertebrates. Many species make their homes in association with particular plant communities, geology, and/or hydrological characteristics. The Addition also supports three listed species under the state and/or Federal Endangered Species Acts (CESA, 1984; ESA 1973, as amended); Desert tortoise (*Gopherus agassizi*), Mohave ground squirrel

(Spermophilus mohavensis), and Golden eagle (Aquila chrysaetos) (CDFG Endangered and Threatened Animals of California, 1995; CDFG List of Fully Protected Animals, California Fish and Game Code Section 3511, birds; Section 4700, mammals and Section 5050, reptiles and amphibians).

Within native ecosystems, the presence of people and associated food, trash, and development can sustain and enhance populations of some species at the expense of other species, thus upsetting the natural ecological balance. Within the Addition, this is most likely to occur in areas visited frequently for camping and picnicking in the areas of Opal Peak, and "Stormy's."

Goal: Perpetuate wildlife assemblages by protecting, restoring, and interpreting the native terrestrial and aquatic animals within the Addition.

Guideline: California State Parks will avoid or minimize human activities that cause imbalances in natural ecological dynamics.

Alternatively, California State Parks will conduct management activities such as habitat restoration that foster ecological balance.

Guideline: Indicator species or ecosystem health will be monitored on a regular basis in order to detect trends or problems at the earliest possible point.

Guideline: California State Parks will use sound methods of resource management to evaluate the need for individual animal or population regulation. Necessary to the regulation process is the development of specific management plans or programs that incorporate habitat modification and visitor education as the first means of population regulation. Direct regulation will be carried out in accordance with the California State Parks Resource Management Directives. Population regulation activities will be subject to environmental review, and disturbance to non-target native species and other features will be avoided or minimized.

Sensitive Animal Species — The Addition is a unique area within Red Rock Canyon State Park as it supports some of the most dense Desert tortoise populations, spectacular steep cliff walls for sensitive birds of prey nesting and rearing areas, spotted and Townsend's big eared bat habitat, and habitat for the Mohave ground squirrel. Birds of prey nesting sites and Mohave ground squirrel habitat are not found or considered abundant in the original State Park acreage. Each of the sensitive species found within the Addition have declined throughout their range thus, management of this valuable habitat is essential for the long-term survival of these species in the Mojave Desert region.

Goal: Protect all sensitive wildlife species occurring in the Park. Sensitive wildlife species include those legally listed under Federal and State law as threatened, or

endangered, those that are species of concern, and those considered locally sensitive or endemic to the area.

Guideline: Regular monitoring of sensitive species will be conducted to track the health and sustainability of sensitive animal populations in the Park. Projects may require the formation of interagency partnerships to plan and implement conservation actions.

Guideline: California State Parks will place emphasis on the protection of birds of prey, Desert Tortoise, cliff, and crevice dwelling species, and Mohave ground squirrel and the conservation of their habitats. Focused surveys, reliable scientific methodologies, and interagency cooperation, will be used to develop an appropriate long-term monitoring programs. This data will aid in the development of management plans that define requirements of, and threats to these species. Regulation, interpretation, and California State Parks visitor cooperative partnerships will manage human activities that threaten the fitness or health of these animals.

Exotic Animal Control—Non-native animal species have been shown to exert pressure on native species through competition for resources. There appears to be evidence that the non-native Chukar competes with the native California quail for food and nesting resources. Non-native invertebrates can also disrupt the natural ecological balance. Although this is not currently a major issue at the Park, it may become more problematic as more of the Parks resources are made available for public use.

Guideline: California State Parks will work to control exotic animals that are found to upset natural ecological dynamics of native species.

Guideline: Regular monitoring of exotic species will be conducted to track the spread of ecologically damaging organisms. This may require cooperative work with neighboring landowners, including government agencies like the BLM.

Hydrology

Within the Addition, sensitive wetland resources are limited in size. They are easily disturbed habitats upon which many other plant and wildlife resources directly depend. Commensurate with the degree to which society sought to protect California's remnant wetlands and surface water quality, so too should the sensitive wetland and hydrologic resources be recognized as requiring the highest level of protection.

There are eight main watersheds within Red Rock Canyon State Park and extend into a several jurisdictions beyond the unit property boundary including the recently incorporated Addition. Within the Addition surface water flows in one small spring fed areas located in upper Last Chance Creek where surface water can be seen down to Cudahy Camp near the middle of the creek/canyon. Although periodic flooding and stream channel scouring are identified constraints, they are also natural processes

necessary to the long-term health of a riparian ecosystem. Facilities such as roads and trails can impact the water resources within the Addition if not managed and used appropriately.

Goal: Protect, enhance, and restore the Park's wetlands and hydrologic resources.

Guideline: Initiate regular monitoring programs including detailed surveying of the riparian scrub in Last Chance and Cudahy Creeks. This may require cooperative work with neighboring landowners, including government agencies like the BLM.

Guideline: Examine methods to deter concentrated vehicle, foot and stock traffic with the riparian ecosystem in Last Chance Creek in order to prevent soil compaction, erosion, impacts to water quality, and trampling of sensitive species known to occur in the area. California State Parks will also facilitate restoration programs of denuded areas.

Guideline: California State Parks will conduct management activities such as habitat restoration that foster ecological balance. Strategies for stabilization and topographic restoration of eroded and compacted features and areas will also be addressed.

BUFFERS

Buffers are relatively low-use areas between adjacent facilities and alternate land uses and areas of sensitive habitats. Buffers separate conflicting land uses, such as designated off highway vehicle use areas, and protect natural habitats from destructive impacts. Impacts may include exotic species invasion, water pollution, noise pollution, predation, and competition for resources by domestic pets; and the loss of habitat for plants and animals that spread outside the boundaries of the Addition.

Goal: As recreation pressures increase, establish, maintain, and protect buffer areas adjacent to the Addition.

Guideline: California State Parks will plan with neighboring landowners and Federal agencies to develop and maintain a buffer system along the outer edge of the Addition boundary.

Guideline: California State Parks will work with these landowners to minimize threats to the natural processes within the Addition.

BIOCORRIDORS

Biocorridors or linkages are interconnected tracts of land characterized by significant natural resource value through which native species can disperse. Facilitating the movement of plants and animals within the Addition and throughout the region outside of the Addition is imperative to preserving natural ecosystem dynamics and regional bio-diversity. The Addition functions as part of a regional bio-corridor

complex.

Goal: Reflective of natural ecosystem dynamics, enhance or maintain the dispersal and movement of native plants and animals through the Addition and the region.

- **Guideline:** California State Parks will maintain high standards for ecosystem health and bio-diversity by protecting plant and animal habitat and dispersal corridors in the Addition.
- **Guideline:** California State Parks will discourage planning that does not consider, through avoidance or mitigation, the degradation and fragmentation of habitat.
- **Guideline:** California State Parks will actively work with or coordinate with property owners to acquire or secure land acquisitions to ensure key biocorridors are preserved or enhanced.
- Guideline: California State Parks promotes natural resource preservation by recognizing the importance of sustainable species populations and their genetic diversity. Inventory and monitoring of the Addition's natural resources and human impacts will be done at regular intervals to assess and document the health of species that rely on large areas to live, hunt, and disperse. Furthermore, California State Parks will participate with government agencies and research institutions in regional resource monitoring.
- **Guideline:** The ecological significance of biocorridors with emphasis on the Park and the Addition, and the surrounding region, will be interpreted for Park visitors.

COMMERCIAL FILMING

Goal: Establish a frequency and limit to crew size for filming in Cultural and Natural Preserves.

Guideline: Develop standards that will lead to a study of impacts of commercial filming to resources in cultural and natural preserves that may lead to amendments of the Department's existing film policy.

Guideline: Solicit funding for such studies from the film industry.

Guideline: The study should contain multiple phases.

Guideline: Phase I should evaluate the most sensitive, requested, and frequented locations used by the industry.